

28. (Amended) The method of claim 27, wherein the wafer has one or more dimensions with a length of at least 7 inches.

29. (Amended) The method of claim 27, wherein the wafer has one or more dimensions with a length of at least 8 inches.

Please cancel claims 30-33.

34. (Unchanged) The method of claim 27, wherein the etching medium is applied continuously during formation of the one or more surfaces.

35. (Unchanged) The method of claim 27, wherein applying the etching medium excludes applying the etching medium in consecutively repeated cycles.

36. (Unchanged) The method of claim 27, wherein the light transmitting medium is silicon.

37. (Unchanged) The method of claim 27, wherein the etching medium includes an etchant and the etching medium is applied such that the etchant has a uniformity of 20% or less across the surface of the wafer.

38. (Unchanged) The method of claim 27, wherein the etching medium includes an etchant and the etching medium is applied such that the etchant has a uniformity of 10% or less across the surface of the wafer.

Please cancel claims 39-72.
Please add new claims 73-95.

73. (Added) The method of claim 27, wherein the etching medium includes a fluorine containing gas.

74. (Added) The method of claim 73, wherein the fluorine containing gas is selected from a group consisting of SF₆, CF₄, Si₂F₆ and NF₃.
75. (Added) The method of claim 73, wherein the fluorine containing gas includes SF₆.
76. (Added) The method of claim 73, wherein the etching medium includes a second fluorine containing gas selected from the group consisting of SiF₄ and SiF₆.
77. (Added) The method of claim 27, wherein the etching medium includes one or more partial passivants.
78. (Added) The method of claim 77, wherein the partial passivant is selected from a group consisting of HBr, SiF₄, C₄F₈, CH₂F₂ and CHF₃.
79. (Added) The method of claim 77, wherein the one or more partial passivants include CHF₃.
80. (Added) The method of claim 77, wherein the one or more partial passivants include C₄F₈.
81. (Added) The method of claim 27, wherein the etching medium is applied at a pressure of 1 mTorr to 600 mTorr.
82. (Added) The method of claim 27, wherein the etching medium is applied at a pressure of 1 mTorr to 60 mTorr.
83. (Added) The method of claim 27, wherein the etching medium is applied at a pressure of 10 mTorr to 30 mTorr.
84. (Added) The method of claim 27, wherein the etching medium includes a fluorine containing gas and a partial passivant.

85. (Added) The method of claim 84, wherein the etching medium has a molar ratio of partial passivant to fluorine containing gas of 0.1:1 to 100:1.
86. (Added) The method of claim 84, wherein the etching medium has a molar ratio of partial passivant to fluorine containing gas of .5:1 to 10:1.
87. (Added) The method of claim 84, wherein the etching medium has a molar ratio of partial passivant to fluorine containing gas of 1:1 to 2:1.
88. (Added) The method of claim 84, wherein the etching medium includes one or more other media in addition to the partial passivant and the fluorine containing gas.
89. (Added) The method of claim 88, wherein the one or more other media is selected from the group consisting of SiF_4 and SiF_6
90. (Added) The method of claim 88, wherein the one or more other media include a noble gas.
91. (Added) The method of claim 27, further comprising:
forming a mask on the optical component before applying the etching medium, the mask formed on the optical component so as to protect regions of the optical component where the one or more waveguides are to be formed.
92. (Added) The method of claim 91, wherein the mask is an oxide mask.
93. (Added) The method of claim 91, wherein the mask is a photoresist.
94. (Added) The method of claim 27, wherein the etching medium is applied in an inductively coupled plasma etch.
95. (Added) The method of claim 27, wherein the etching medium consists of SF_6 , CHF_3 and Oxygen.